IN THE CLAIMS:

1. (Original) A magnetic disk drive, comprising:

a magnetic head slider (1) mounted thereon with a magnetic read/write element (20) to read and write information;

a suspension (4) comprising a plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1), a flexible circuit (8) and a load beam (10);

a magnetic disk (2) for holding information;

rotation drive (16) of said magnetic disk (2); and

an actuator mechanism (13) for moving a magnetic head assembly (3) along the information recording surface of said magnetic disk (2), said actuator mechanism comprising said magnetic head slider (1) and said suspension (4), wherein

said magnetic disk drive further comprises means for changing a flying height of said magnetic head slider (1) with respect to said magnetic disk (2) according to temperature in said magnetic disk drive, and means for particularly decreasing the flying height from the flying height at a room temperature of 25°C when the temperature is lower than the room temperature and increasing the flying height from the flying height at the room temperature when the temperature is higher than the room temperature.

2. (Original) The magnetic disk drive according to Claim 1, further comprising means for simply changing the flying height from the flying height at the room temperature status of 25°C with respect to the temperature in a desired temperature range, wherein the

average rate of change of the flying height caused by the change of temperature is in a range of 0.15%/°C to 0.45%/°C.

3. (Original) A magnetic disk drive, comprising:

a magnetic head slider (1) mounted thereon with a magnetic read/write element (20) to read and write information;

a suspension (4) comprising a plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1), a flexible circuit (8) and a load beam (10);

a magnetic disk (2) for holding information;

a rotation drive (16) of said magnetic disk (2); and

an actuator mechanism (13) for moving a magnetic head assembly (3) along the information recording surface of said magnetic disk (2), said actuator mechanism comprising said magnetic head slider (1) and said suspension (4), wherein

said magnetic disk drive further comprises a structure for generating stress in said magnetic head assembly (3) by the change of temperature, and said magnetic head slider (1) is decreased in crown value when the temperature is lower than a room temperature (25°C), and the crown value of said magnetic head slider (1) is increased when the temperature is higher than the room temperature.

4. (Original) The magnetic disk drive according to Claim 3, wherein the rate of change of the crown value caused by the change of temperature is 0.26 to 0.62 nm/°C in a desired temperature range.

5. (Previously Presented) The magnetic disk drive according to Claim 3, wherein the average rate of change of the flying height caused by the change of temperature from the flying height at the room temperature status (25°C) is 0.15%/°C to 0.45%/°C in a desired temperature range.

6. (Original) A magnetic head assembly, comprising:

a magnetic head slider (1) mounted thereon with a magnetic read/write element (20) to read and write information;

a plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1);

a flexible circuit (8); and

a load beam (10), wherein

$13.2x\text{-}10^{-5}/°C < \alpha_1 - \alpha_2 < -5.5x10^{-5}/°C$ is satisfied as a relationship of a thermal expansion coefficient α_1 of said plate spring (9) and a thermal expansion coefficient α_2 of said magnetic head slider (1).

7. (Original) The magnetic head assembly according to Claim 6, wherein said magnetic head slider (1) contains alumina carbide titanate, and said plate spring (9) is made of an invar-alloy containing iron and nickel and having a thermal expansion coefficient of not more than $2.3x10^{-5}/°C$.

8. (Original) The magnetic head assembly according to Claim 6, wherein said magnetic head slider (1) contains alumina carbide titanate, and said plate spring (9) is made of an alloy containing iron, nickel and cobalt and having a thermal expansion coefficient of not more than $2.3\text{x}10^{-5}$/°C.

9. (Original) A magnetic disk drive, comprising:

a magnetic head slider (1) mounted thereon with a magnetic read/write element (20) to read and write information;

a suspension (4) comprising a plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1), a flexible circuit (8), and a load beam (10);

a magnetic disk (2) for holding information;

a rotation drive (16) of said magnetic disk (2); and

an actuator mechanism (13) for moving a magnetic head assembly (3) along the information recording surface of said magnetic disk (2), said actuator mechanism comprising said magnetic head slider (1) and said suspension (4), wherein

$-13.2\text{x}10^{-5}/°\text{C} < \alpha_1 - \alpha_2 < -5.5\text{x}10^{-5}/°\text{C}$ is satisfied as a relationship of a thermal expansion coefficient α_1 of said plate spring (9) and a thermal expansion coefficient α_2 of said magnetic head slider (1).

10. (Original) The magnetic disk drive according to Claim 9, wherein said magnetic head slider (1) contains alumina carbide titanate, and said plate spring (9) is made of an invar-

alloy containing iron and nickel and having a thermal expansion coefficient of not more than $2.3x10^{-5}/°C$.

11. (Original) The magnetic disk drive according to Claim 9, wherein said magnetic head slider (1) contains alumina carbide titanate, and said plate spring (9) is made of an alloy containing iron, nickel and cobalt and having a thermal expansion coefficient of not more than $2.3x10^{-5}/°C$.

12. (Original) A magnetic head assembly (3), comprising:

a magnetic head slider (1) mounted thereon with a magnetic read/write element (20) to read and write information;

a plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1);

a flexible circuit (8); and

a load beam (10), wherein

a thin film (7) is formed on a rear surface of the sliding face of said magnetic head slider (1) with respect to a magnetic disk (2), the thin film having a thermal expansion coefficient smaller than that of the material of said magnetic head slider (1).

13. (Original) The magnetic head assembly according to Claim 12, wherein said magnetic head slider (1) contains alumina carbide titanate, and $-2.20x10^{-7}$ mm/°C > $(\alpha_l-\alpha_2)$ x t_l > $-4.6x10^{-7}$ mm/°C is satisfied as a relationship of the thermal expansion coefficient α_l of said thin

film (7), the film thickness t_1 thereof, and the thermal expansion coefficient α_2 of said magnetic head slider (1).

14. (Previously Presented) The magnetic head assembly according to Claim 12, wherein said magnetic head slider (1) contains alumina carbide titanate, and said thin film (7) has a film thickness of 10% to 50% of the thickness of said magnetic head slider (1).

15. (Original) A magnetic disk drive, comprising:

a magnetic head slider (1) mounted thereon with a magnetic read/write element (20) to read and write information;

a thin film (7) formed on a rear face of a sliding face of said magnetic head slider (1) for a magnetic disk (2);

a suspension (4) comprising a plate spring (9) of a thin plate shape for adhering to and supporting the rear face of said magnetic head slider (1) via the thin film (7), a flexible circuit (8) and a load beam (10);

a magnetic disk (2) for holding information;

rotation drive means (16) of said magnetic disk (2); and

an actuator mechanism (13) for moving a magnetic head assembly (3) which comprises said magnetic head slider (1) and said suspension (4) along the information recording surface of said magnetic disk (2), wherein

the thermal expansion coefficient of said thin film (7) is smaller than the thermal expansion coefficient of said magnetic head slider (1).

16. (Original) The magnetic disk drive according to Claim 15, wherein said magnetic head slider (1) contains alumina carbide titanate, and -2.20×10^{-7} mm/°C > $(\alpha_l - \alpha_2) \times t_l$ > -4.6×10^{-7} mm/°C is satisfied as a relationship of the thermal expansion coefficient α_l of said thin film (7), the film thickness t_l thereof, and the thermal expansion coefficient α_2 of said magnetic head slider (1).

17. (Previously Presented) The magnetic disk drive according to Claim 15, wherein said magnetic head slider (1) contains alumina carbide titanate, and the film thickness of said thin film (7) is 10% to 50% of the thickness of said magnetic head slider (1).

18. (Original) A magnetic head assembly (3) comprising:

a magnetic head slider (1) mounted thereon with a magnetic read/write element (20) to read and write information;

a plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1);

a flexible circuit (8); and

a load beam (10), wherein

said plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1) is constructed as a bi-metal structure of two thin plates with different thermal expansion coefficients.

19. (Original) A magnetic disk drive, comprising:

a magnetic head slider (1) mounted with a magnetic read/write element (20) to read and write information;

a suspension (4) comprising a plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1), a flexible circuit (8) and a load beam (10);

a magnetic disk (2) for holding information;

rotation drive means (16) of said magnetic disk (2); and

an actuator mechanism (13) for moving a magnetic head assembly (3) comprising said magnetic head slider (1) and said suspension (4) along the information recording surface of said magnetic disk (2), wherein

said plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1) is constructed as a bi-metal structure of two thin plates with different thermal expansion coefficients.

20. (Currently Amended) A magnetic disk drive, comprising:

a magnetic head slider (1) mounted thereon with a magnetic read/write element (20) to read and write information;

a suspension (4) comprising a plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1), a flexible circuit (8) and a load beam (10);

a magnetic disk (2) for holding information;

rotation drive means (16) of said magnetic disk (2); and

an actuator mechanism (13) for moving a magnetic head assembly (3) comprising said magnetic head slider (1) and said suspension (4) along the information recording surface of said magnetic disk (2), wherein

said magnetic disk drive further comprises temperature detection means (32) for detecting the internal temperature of said magnetic disk drive, and flying height control means for changing a flying height of said magnetic head slider (1) with respect to said magnetic disk (2) based on the temperature detection result by said temperature detection means (32), and said plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1) is constructed as a bi-metal structure of two thin plates with different thermal expansion coefficients.

21. (Original) The magnetic disk drive according to Claim 20, wherein said flying height control means changes said flying height so that the flying height of said magnetic head slider (1) with respect to said magnetic disk (2) is decreased when the temperature is lower than the room temperature.

22. (Original) The magnetic disk drive according to Claim 20, wherein said flying height control means changes said flying height so that the flying height of said magnetic head slider (1) with respect to said magnetic disk (2) is increased when the temperature is higher than the room temperature.

23. (Original) The magnetic disk drive according to Claim 20, wherein said flying height control means changes the flying height so that the flying height of said magnetic head slider (1) with respect to said magnetic disk (2) is decreased when the temperature is lower than the room temperature, and the flying height of said magnetic head slider (1) with respect to said magnetic disk (2) is increased when the temperature is higher than the room temperature.

24. (Previously Presented) The magnetic disk drive according to Claim 20, wherein the average rate of change of the flying height caused by the change of temperature from the flying height at the room temperature status (25°C) is 0.15%/°C to 0.45%/°C in a desired temperature range.

25. (Currently Amended) A magnetic disk drive, comprising:

a magnetic head slider (1) mounted thereon with a magnetic read/write element (20) to read and write information;

a suspension (4) comprising a plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1), a flexible circuit (8) and a load beam (10);

a magnetic disk (2) for holding information;

rotation drive means (16) of said magnetic disk (2); and

an actuator mechanism (13) for moving a magnetic head assembly (3) comprising said magnetic head slider (1) and said suspension (4) along the information recording surface of said magnetic disk (2), wherein

said magnetic disk drive further comprises temperature detection means (32) for detecting the internal temperature of said magnetic disk drive, and crown value control means (40) for changing the crown value of said magnetic head slider (1) based on the temperature detection result by said temperature detection means (32), said plate spring (9) of a thin plate shape for adhering to and supporting said magnetic head slider (1) is constructed as a bi-metal structure of two thin plates with different thermal expansion coefficients.

26. (Original) The magnetic disk drive according to Claim 25, wherein the rate of change of the crown value caused by the change of temperature is 0.26 to 0.62 nm/°C in a desired temperature range.

27. (Previously Presented) The magnetic disk drive according to Claim 25, wherein the average rate of change of flying height caused by the change of temperature from the flying height at the room temperature status (25°C) is 0.15%/°C to 0.45%/°C in a desired temperature range.